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- (51) 国際特許分類: A61K 38/22, A61P 3/10, 13/12, 19/00, 19/10 (74) 代理人: 社本 一夫, 外 (SHAMOTO, Ichio et al.); 〒100-0004 東京都千代田区大手町二丁目2番1号新大手町ビル206区ユアサハラ法律特許事務所 Tokyo (JP).
- (21) 国際出願番号: PCT/JP03/07198
- (22) 国際出願日: 2003 年 6 月 6 日 (06.06.2003) (81) 指定国 (国内): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
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- (71) 出願人 (米国を除く全ての指定国について): 中外製薬株式会社 (CHUGAI SEIYAKU KABUSHIKI KAISHA) [JP/JP]; 〒115-8543 東京都北区浮間5丁目5番1号 Tokyo (JP). (84) 指定国 (広域): ARIPO 特許 (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), ユーラシア特許 (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), ヨーロッパ特許 (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI 特許 (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
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- 添付公開書類:
— 国際調査報告書
- 2文字コード及び他の略語については、定期発行される各PCTガゼットの巻頭に掲載されている「コードと略語のガイダンスノート」を参照。

(54) Title: REMEDY FOR BONE METABOLIC DISEASES

(54) 発明の名称: 骨代謝疾患治療剤

(57) Abstract: It is intended to provide a remedy for bone metabolic diseases which contains EPO as the active ingredient and a method of treating patients with bone metabolic diseases. In addition to the reported effect of increasing erythrocytes, a preparation containing EPO as the active ingredient is a novel preventive/remedy exerting an effect of ameliorating lesions in bone and bone marrow on patients with bone diseases, in particular, bone diseases based on bone metabolic errors. The pathological conditions to be treated therewith include bone diseases accompanied by bone metabolic errors such as osteodystrophy associating with renal failure, marble bones, diabetic nephropathy and osteoporosis.

(57) 要約: EPOを有効成分として含有する骨代謝疾患治療剤又は骨代謝疾患患者の治療方法を提供する。EPOを有効成分とする製剤は、既報のEPOによる赤血球増加作用とは別に、骨疾患、特に骨代謝異常に基づく骨疾患に対して、骨および骨髄の病変治療による改善作用をもたらす新規の予防・治療剤であり、その対象病態は、骨代謝異常を示す骨疾患であり、腎不全に伴う骨異常栄養症、大理石病、糖尿病性腎症、骨粗鬆症等である。

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/07198

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl⁷ A61K38/22, A61P3/10, 13/12, 19/00, 19/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl⁷ A61K38/00-58, A61P3/10, 13/12, 19/00, 19/10

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1922-1996	Toroku Jitsuyo Shinan Koho	1994-2003
Kokai Jitsuyo Shinan Koho	1971-2003	Jitsuyo Shinan Toroku Koho	1996-2003

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
CAPLUS (STN), BIOSIS (STN), REGISTRY (STN), EMBASE (STN), MEDLINE (STN)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MUNDY G.R. et al., Factors which stimulate bone growth in vivo, Growth Regulation, 1993, Vol.3, No.2, pages 124 to 128, full text; particularly, page 126, left column, lines 6 to 12	1, 2, 6, 7
X	EP 499242 A1 (TAKEDA CHEMICAL INDUSTRIES, LTD.), 19 August, 1992 (19.08.92), Full text; particularly, page 3, lines 42 to 44; Claim 1 & JP 5-132426 A	1, 2, 6, 7
A	SCHOBER, Hans-Christof et al, Bone histomorphometry in recombinant human erythropoietin-treated patients on chronic haemodialysis, Contributions to Nephrology, 1991, Vol.88, pages 127 to 135	1, 2, 6, 7

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:
 "A" document defining the general state of the art which is not considered to be of particular relevance
 "E" earlier document but published on or after the international filing date
 "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
 "O" document referring to an oral disclosure, use, exhibition or other means
 "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
 "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
 "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
 "&" document member of the same patent family

Date of the actual completion of the international search
06 September, 2003 (06.09.03)

Date of mailing of the international search report
16 September, 2003 (16.09.03)

Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/07198

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JABS, Kathy, The effects of recombinant human erythropoietin on growth and nutritional status, Pediatric Nephrology, 1996, Vol.10, No.3, pages 324 to 327	1, 2, 6, 7
A	JP 62-31 A (Chugai Pharmaceutical Co., Ltd.), 06 January, 1987 (06.01.87), Full text. (Family: none)	1, 2, 6, 7

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/07198

Box I Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 3-5

because they relate to subject matter not required to be searched by this Authority, namely:

Claims 3 to 5 pertain to methods for treatment of the human body by therapy and thus relate to a subject matter which this International Searching Authority is not required, under the provisions of Article 17(2)(a)(i) of the PCT and Rule 39.1(iv) of the Regulations under the PCT, to search.

2. ☐ Claims Nos.:

because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:

because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.